

**Date:** November 29, 2016

**PI:** 0006700

**Description:** Effingham Pkwy from CR156/Blue Jay Rd (Effingham Co.) to SR30 (Chatham Co.)

**Location:** Chatham & Effingham Counties

**Subject:** Review of VE Study Recommendations by Office of Design Policy

Below are the two recommendations supported for implementation for PI 0006700.

**Alt A-2 - Place the profile crest on the bridge (Potential Savings = \$94,000)**

- No design policy issues were noted with adjusting the profile in order to introduce crest vertical curves on the bridge(s).
- Longitudinal drainage on the bridge(s) would be improved by implementing this change, reducing the potential for hydroplaning.

**Recommendation:** We support this recommendation.

**Alt B-8 – Realign the northern tie-in with a 55 mph design speed curve (Potential Increase = \$91,000)**

- Realignment avoids multiple Design Variances to install a 45mph curve on a 55mph new location roadway.
- The originally proposed sharp curve at the end of a long tangent section would potentially increase crash frequency and/or severity from runoff crashes.
- Cost increase noted as \$91,000 in VE Study was based only on additional pavement; total cost may be significantly higher. Additional costs could include earthwork, additional ROW, additional environmental work, utility costs, possible additional mapping, etc.
- Utility risks - While the consultant has spoken with Southern Co. and does not believe there would be significant costs associated with a new gas line crossing, the costs of any repairs or upgrades required for the new crossing could be very high (\$1.5 to \$2M, according to Kerry Gore of the Office of Utilities), and the cost would be borne by GDOT and/or Effingham County.
- If utility costs are prohibitive, alternative alignments that meet 55mph design speed and minimize utility impacts may be considered.

**Recommendation:** We agree with the recommendation to remove the 45mph curve design, but cost and impacts may be greater than reported and should be reviewed during implementation.

DGP:drp

Attachments

## Peters, Dave

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**From:** Gore, Kerry  
**Sent:** Monday, November 21, 2016 1:11 PM  
**To:** Peters, Dave  
**Subject:** RE: Utilities Question

Dave,

As discussed, the ballpark relocation cost would be 1.5 to 2 million dollars. There appear to be 4 lines at this locations and all the lines would have to be replaced because of the type of pipe that is typically installed cross country on these lines. If you have any questions, let me know.

Thanks

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**From:** Peters, Dave  
**Sent:** Monday, November 21, 2016 12:01 PM  
**To:** Gore, Kerry  
**Subject:** Utilities Question

Kerry,

Hiral asked us to take a look at some VE recommendations on a project in Chatham & Effingham Co (0006700). One of the recommendations is to redesign the northern most curve.

- The pre-VE proposal was for a 45mph curve that would avoid new impacts to a large gas pipeline by tying into Blue Jay just prior to the pipeline (It looks like it's owned by Southern Co., but I'm not sure)
- The VE is proposing a new alignment that would cross the pipeline on new location south of Blue Jay Road, at 55mph & almost full SE (around 5.9%).

The proposed roadway is 2 lanes with 10ft (6.5ft paved) shoulders, 55mph design speed. The proposed road runs parallel to the gas line until it cross, so it wouldn't be a clean 90 degree crossing...

I've attached an image from Google Earth of the pipeline crossing at Blue Jay Rd, looking south into the easement. The new xing would be around 300ft south of where Blue Jay Rd and the pipeline meet (kmz file attached).

What would be the approximate costs & major risks of a new location crossing on a major pipeline like this?

Thanks for you help!

*Dave Peters, PE  
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# Effingham Parkway



PI 0006700  
Concept Layout  
(2014)